

CLAIMS

1. A multi-function interface for interfacing a wireless modem with a host, the multi-function interface including a plurality of logical devices associated with the wireless modem such that the plurality of logical devices provide connectivity between the wireless modem and the host, wherein the plurality of logical devices includes a first logical device to provide communication between the wireless modem and the host and the plurality of logical devices includes a second logical device for providing real-time status information of the wireless modem to the host during operation.

2. A multi-function interface as recited in Claim 1, wherein the first logical device is a communication port.

3. A multi-function interface as recited in Claim 2, wherein the second logical device is a status port.

4. A multi-function interface as recited in Claim 3, wherein the status port provides the real-time status information as the communication device is on-line.

15 5. A multi-function interface as recited in Claim 1, wherein the wireless modem is a personal communication memory card international association (PCMCIA) card.

6. A multi-function interface as recited in Claim 1, wherein the plurality of logical devices are configured using a field programmable gate array (FPGA) such that two communication port capabilities are provided.

7. A communication device which communicates with a host, the communication device including a plurality of logical devices associated with the communication device where the plurality of logical devices provide connectivity to the host.

8. A communication device as recited in Claim 7, wherein the communication device is a wireless modem.

10 9. A communication device as recited in Claim 7, wherein the plurality of logical devices includes a first logical device associated with the communication device.

10. A communication device as recited in Claim 9, wherein the first logical device provides a status port between the communication device and the host.

15 11. A communication device as recited in Claim 10, wherein the status port allows the communication device to provide real-time status information of the communication device to the host.

12. A communication device as recited in Claim 11, wherein the real-time status information of the communication device includes the signal strength of the communication device.

13. A communication device as recited in Claim 11, wherein the real-time status information of the communication device includes the temperature of the communication device as the communication device communicates with other communication devices.

14. A communication device as recited in Claim 9, wherein the plurality of logical devices includes a second logical device associated with the communication device.

15. A communication device as recited in Claim 14, wherein the second logical device provides a communication port between the communication device and the host.

16. A communication device as recited in Claim 15, wherein the communication port allows the communication device to transmit data from the host to another communication device.

17. A communication device as recited in Claim 14, wherein the first logical device and the second logical device communicate simultaneously with the host.

18. A communication device as recited in Claim 14, wherein the second logical device transmits IP based and non-IP based applications.

19. A multi-function interface which provides connectivity between a communication device and a computing device, where connectivity is established using a plurality of logical devices associated with the communication device, the multi-function interface comprising:

10 a communication port, the communication port being one of the plurality of logical devices, the communication port transmitting data between the communication device and the computing device; and

15 a status port, the status port being one of the plurality of logical devices, the status port providing real-time status information of the communication device as the communication port transmits data.

20. A multi-function interface as recited in Claim 19, wherein the communication port is configured using a field programmable gate array (FPGA).

21. A multi-function interface as recited in Claim 19, wherein the status port is configured using a field programmable gate array (FPGA).

22. A multi-function interface as recited in Claim 19, wherein the communication port and the status port communicate with the host simultaneously.

23. A multi-function interface as recited in Claim 19, wherein the communication device is a wireless modem.

24. A multi-function interface as recited in Claim 23, wherein the real-time status information includes a signal strength of the wireless modem as the data is transmitted between the wireless modem and the host.

10 25. A multi-function interface as recited in Claim 23, wherein the real-time status information includes informing the host if the wireless modem is maintaining a signal with a network during data transmission.

15 26. A wireless communication device in communication with a computing device, where connectivity between the wireless communication device and the computing device is established with a plurality of logical devices, the wireless communication device comprising:

a communication port, the communication port being a logical device of the plurality of logical devices, where the communication port transmits data between the wireless communication device and the computing device; and

5 a status port, the status port being another logical device of the plurality of logical devices, where the status port provides real-time status information to the computing device as the communication port transmits data between the wireless communication device and the computing device.

27. A wireless communication device as recited in Claim 26, wherein the wireless communication device is a personal communication memory card international association (PCMCIA) card.

10 28. A wireless communication device as recited in Claim 26, wherein the wireless communication device is a wireless modem.

15 29. A wireless communication device as recited in Claim 26, wherein the real-time status information includes a temperature of the wireless modem.

30. A wireless communication device as recited in Claim 26, wherein the real-time status information includes a signal strength of the wireless modem as the wireless modem transmits the data.

31. A wireless communication device as recited in Claim 26, wherein the communication port and the status port simultaneously communicate with the host.

32. A wireless communication device as recited in Claim 26, wherein a field programmable gate array (FPGA) is used to configure the communication port.

33. A wireless communication device as recited in Claim 26, wherein a field programmable gate array (FPGA) is used to configure the status port.